REMARKS

Claims 40 - 52 are currently pending and under examination. Claims 40 - 52 stand rejected. By this Amendment, claim 40 has been amended and claims 45 - 52 have been canceled. Accordingly, upon entry of this Amendment, claims 40 – 44, as amended, will be pending and under examination. Claim 40 is independent.

Claim 40 has been amended to include amplification "using ramification-extension amplification method (RAM) under isothermal conditions." Support for this amendment may be found *inter alia* in the subject application, as originally-filed, at page 63, lines 15 – 20. Applicants have also amended claim 40 to replace "the signal" with "a signal" to provide proper antecedent basis.

Rejection Under 35 U.S.C. § 112, Second Paragraph

Page 2 of the July 28, 2006 Office Action states that claims 40-52 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, the Office Action states that claims 40 and 47 recited the limitation "the signal" in (iii) of step (b) and there is insufficient antecedent basis for this limitation. Without conceding either the correctness of the position stated in the Office Action or the need for amendment for patentability reasons, Applicants have amended claim 40 to replace "the signal" with "a signal" to provide proper antecedent basis. Applicants respectfully request that the 35 U.S.C. §112, second paragraph, rejection be withdrawn.

Rejection Under 35 U.S.C. § 103(a)

Claims 47, 48, 51 and 52

Page 3 of the July 28, 2006 Office Action states that claims 47, 48, 51 and 52 are rejected under 35 U.S.C. §103(a) as being unpatentable over Wang, et al. (U.S. Patent No. 5,567,583)("Wang") in view of Harris (U.S. Patent No. 5,837,469) ("Harris"). By this Amendment Applicants have cancelled claims 47, 48, 51 and 52. Accordingly, this rejection is moot and Applicants respectfully request that it be withdrawn.

Claims 40-42, 45 and 46

Page 6 of the July 28, 2006 Office Action states that claims 40-42, 45 and 46 are rejected under 35 U.S.C. §103(a) as being unpatentable over Zhang, et al., (U.S. Patent No. 5,942,391) ("Zhang")in view of Wang and Harris.

Specifically, Page 6 of the Office Action states that Zhang describes a method for detecting a target nucleic acid in a sample using RAM to amplify a target nucleic acid using a circular oligonucleotide probe (claim 1 in columns 67 – 69 and Figure 1) as recited in independent claim 40 and dependent claims 45 and 46.

However, Page 9 of the Office Action acknowledges that Zhang does not disclose a primer pair comprising a first primer and a second primer having the characteristics recited in sections (i), (ii) and (iii) or detecting a signal which is generated by separating the signal generating moiety and the quenching, masking or inhibitory moiety as recited in claim 40. The Office Action further acknowledged that Zhang does not teach that the signal generating moiety is a fluorescent agent as recited in claim 42.

The Office Action cited Wang and Harris to allegedly overcome these deficiencies. The Office Action then concluded that it would have been *prima facie* obvious to one having ordinary skill in the art at the time the invention was made to have performed the method recited in independent claim 40, in view of the patents of Zhang, Wang and Harris.

Petition for an Unintentionally Delayed Claim Under 37 CFR 1.78(a)(3)

Applicants have submitted a Petition for an Unintentionally Delayed Claim Under 37 CFR 1.78(a)(3) to claim benefit to prior-filed applications including Zhang. The Petition with a supporting Declaration and Exhibits is attached hereto for your convenience. If the Petition is granted, the subject application will claim priority to Zhang and thus Zhang will not be available as a 35 U.S.C. §103(a) reference. Applicants respectfully submit that neither Wang nor Harris alone or in combination render claims 40-42, 45 and 46 obvious. Accordingly, Applicants respectfully request that the 35 U.S.C. 103(a) rejections be withdrawn.

Even if Applicants' Petition is not granted Applicants respectfully disagree that it would have been obvious to perform the method recited in claim 40, in view of the patents of Zhang, Wang and Harris. Wang teaches the use of a blocking oligonucleotide which is designed to prevent primer extension of the bound primer. Therefore, even assuming the Wang primer/oligonucleotide pair binds to the target nucleic acid, primer extension will be prevented by the addition of the "bulky molecular moiety...at the vicinity of the 3' end to sterically hinder the polymerase from catalyzing the extension reaction." (column 5, lines 25 – 27). Accordingly, it would not have been obvious to perform the method of claim 40 in the presence of a blocking oligonucleotide, which would only serve to compete with the second primer of the primer pair of the subject invention (i.e., the primer comprising a moiety capable of quenching, masking or

inhibiting) and thereby block primer extension. Therefore, it would not have been *prima facie* obvious to one having ordinary skill in the art at the time the invention was made to have performed the method recited in claim 40, in view of the patents of Zhang, Wang and Harris and the 35 U.S.C. 103(a) rejections should be withdrawn.

CONCLUSION

Applicants respectfully submit that this application is in condition for allowance. Early and favorable action is earnestly solicited. No fee, except for the fee in connection with the three month extension fee, is believed due in connection with the filing of this Response. However, if any additional fees are due the amount of such fee may be charged to Deposit Account No. 19-4709.

Respectfully submitted,

Steven B. Pokotilow
Registration No. 26,405
Attorney for Applicant
STROOCK & STROOCK & LAVAN, LLP
180 Maiden Lane
New York, New York 10038-4982
212-806-5400